

ABSTRACT

An ion-conductive composition includes an electrolyte solution made of an ion-conductive salt and a solvent in which the ion-conductive salt is soluble, and a thermoplastic resin having a specific swelling ratio when immersed in the electrolyte solution. The invention is also directed at a gel electrolyte produced by shaping the thermoplastic resin, then immersing it in an electrolyte solution to effect swelling. High-performance non-aqueous electrolyte batteries and electrical double-layer capacitors can be built using a thermoplastic resin-containing electrode binder composition in which the resin bonds well with active materials or activated carbon and which has an excellent adhesion to current conductors.